

POLEPOX FLOOR 828-CW

(former WATER-EPOXY HIGH-RESISTANT FLOOR)
EPOXY-BASED, CEMENTITIOUS, SELF-LEVELING DAMP PROOF SUB FLOOR

GENERAL CHARACTERISTICS

POLEPOX FLOOR 828-CW is a three component, epoxy-modified, cementitious, self-leveling, screed diluted in water.

- Ideal as a damp proof sub floor when applied in thickness higher than 2mm.
- Allows installation of epoxy coatings, carpets, tiles, mortars etc, on moisture floorings.
- In exterior surfaces, it can be applied on moisture cement surfaces prior application of **ELASTOCOAT 841**, or **SUPER ELASTOCOAT 842**, or **ELASTOSPORT 853** or/and **ELASTOTURF 851** for the construction of athletic fields.
- It can be applied in pools with arising humidity prior painting.
- Excellent adhesion on damp concrete.
- Resistant to mechanical stresses.
- Ideal for covering industrial floorings, mosaics, cement surfaces, decks, bio-cleanings, water baths, silos.
- Areas of application: food industries, dairies, laboratories, car workshops, parking areas, bio-cleanings, production plants, offices, hospitals for antibacterial use etc.
- It can also remain as final surface with medium resistance to acid environments.
- For high resistance to acid solutions, it is recommended overcoating with **POLEPOX COAT 814** (former EPOXY PLASTICOAT) or **POLEPOX FLOOR 817** (former POLAT HIGH RESISTANT FLOOR).

TECHNICAL DATA

Basis:	two-component epoxy resin, cementitious powder
Appearance:	viscous liquid
Colors:	cement grey, dark indian red, dark green, dark blue
Viscosity:	9900 ± 250 mPa•s at 23°C
Density:	1,87 gr/cm ³
Bulk density (C):	1475 ± 5 gr/lit
Mixing proportion (A:B:C):	14:14:72 by weight
Working time:	approx. 20min at 23°C
Granulometry (C):	63µm - 800µm
Compressive strength: (ASTM D 695)	42 N/mm ² , 7 days at 23°C 58 N/mm ² , 28 days at 23°C
Flexural strength: (Din 1164)	7 N/mm ² , 7 days at 23°C 14 N/mm ² , 28 days at 23°C
Temperature for the application and drying of the	

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material:	12 – 35°C
Walkability:	after 16 – 20 hours in thickness of 2 mm in 25°C
Overcoating:	after 3 days in thickness of 2 mm in 25°C
Adhesive strength:	3,18 ± 0,09 N/mm ² (breaking of concrete)

SUBSTRATE REQUIREMENTS

Concrete quality:	at least C20/25
Age:	at least 28 days
Substrate Relative Humidity (RH):	≤ 95% RH

PREPARATION - APPLICATION

Applied only on stable surfaces. Free of materials that might prevent bonding e.g. dust, loose particles, grease etc. The success in the application depends on the right preparation of the underlay and use of the material.

- Treatment of the surface mechanically with a mosaic machine, sandblast or rotor machine to achieve an opened texture fine gripping surface, free of cement laitance.
- Removal of weak concrete and expose of surface defects such as voids.
- **Good, dry** cleaning of the surface from dust and residues with vacuum cleaner and squeegees.
- Application of **POLEPOX-PR 826-W** (former WATER-EPOXY PRIMER), diluted with 30% **WATER** for deeper penetration, in one layer using a roll or brush.
- Then, application of another or more coatings, with undiluted **POLEPOX-PR 826-W** (former WATER-EPOXY PRIMER), until the surface is saturated and a film is created. If mat spots are created then another layer is necessary until the final outcome is shiny. The next layer follows the other before the previous starts to dry. Consumption: 200-300gr/m², depending on the absorption of the underlay.
- The next day, after the primer has dried and within 24 hours, follows the application of **POLEPOX FLOOR 828-CW**.
- Stir or shake component A (resin) to re-mix any separation during transport. Then mix components A (resin) & B (hardener) packed into separate containers in fixed weight proportions. Mixing should be performed using a low revolution mixer (300-600 rpm) for 1-2 min. Stirring of the mixture should be performed thoroughly near the sides and bottom of the container in order to achieve uniform dispersion of the hardener. Afterwards, the whole quantity of component C (cement-based powder) is gradually added into the mixture under continuous stirring until a uniform water-epoxy mortar is formed.
- The water-epoxy mortar is poured on the primed surface and spread on the desired thickness using a toothed spatula or special rolls.
- Following the application of the **POLEPOX FLOOR 828-CW**, the self-leveling layer should be rolled using a special spiky-roller in order to ensure even thickness and release any possibly entrapped air avoiding the formation of bubbles. If it is necessary to walk on freshly laid compound, it is recommended use of spiked shoes.
- Allow the material to dry before over coating, which normally takes three days and depends upon the ambient conditions and moisture content of the substrate.
- **Overcoating with a epoxy topcoats**
- When over coating **POLEPOX FLOOR 828-CW** with an epoxy topcoat ensure that surface moisture content is ≤4%.
- **POLEPOX FLOOR 828-CW** surface can be overcoated using **POLEPOX COAT 827-W** (former WATER-EPOXY PLASTICOAT) (Consumption: 1,4 Kg/m²/1mm) or **POLEPOX**

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COAT 814 (former EPOXY PLASTICOAT) (Consumption: 1,5 Kg/m²/1mm) or **POLEPOX FLOOR 817** (former POLAT HIGH RESISTANT FLOOR) (Consumption: 1,7 Kg/m²/1mm). Each time the surface must be overlaid using the appropriate primer before applying any of the above coatings.

- There is also the option of using **POLEPOX-DP 815** (former ANTI-DUST EPOXY RESIN) (Consumption: 250-500 gr/m²).
- **Slip resistant finish**
- For the creation of a completely non-slip surface, it is recommended on a still fresh layer before the application of **POLEPOX COAT 827-W** (former WATER-EPOXY PLASTICOAT) or **POLEPOX COAT 814** (former EPOXY PLASTICOAT) the dredging of dry, quartz sand with a particle size 0,1-0,4mm or 0,4-0,8mm depending on the desired anti-slipping effect. Consumption of quartz sand: approx. 4 kg/m².
- After hardening of **POLEPOX FLOOR 828-CW**, any loose grains are being removed using a high suction vacuum cleaner. Finally a finishing layer of **POLEPOX COAT 827-W** (former WATER-EPOXY PLASTICOAT) or **POLEPOX COAT 814** (former EPOXY PLASTICOAT) is applied for the creation of an acid proof, easy to clean, non-slip surface. Consumption: 0,7-1 Kg/m².

Exterior athletic fields

In exterior surfaces **POLEPOX FLOOR 828-CW** can be overcoated using **ELASTOCOAT 841** (Consumption: 1,3 Kg/m²/1mm), or **SUPER ELASTOCOAT 842** (Consumption: 0,9 Kg/m²/1mm), or **ELASTOSPORT 853** (Consumption: 1,65 Kg/m²/1mm), or/and **ELASTOTURF 851** (Consumption: 1,6 Kg/m²/1mm) for the construction of athletic fields.

Each time the surface must be primed using joining resin **RITIVEX 1102** or **AKRYLEX 165 1101** for the proper adhesion of the above coatings. Consumption: 150-250 gr/ m².

For more information consult POLAT's TECHNICAL DATA SHEETS.

CONSUMPTION

- 1,9 Kg/m²/mm
- 3,8 Kg/m²/2mm

APPLICATION TOOLS

Rubber rolls of 1,7 or 2,5 mm or toothed spatula depending the desirable thickness. Tools should be cleaned with **WATER** immediately after use.

PACKAGING

Supplied in packages of 30Kg (two drums, one bag). Components A, B and C have the fixed weight proportion.

STORAGE

One year in unopened containers in dry places with minimum temperature 5°C.

REMARKS

- Working time of **POLEPOX FLOOR 828-CW** decreases when ambient temperature rises.
- Never attempt to proportion the resin and hardener components. Incorrect mixing ratios or poor mixing can result in irregular hardening or variations in the final finish.
- Minimum thickness is 2mm for use as a damp proof layer.
- Freshly applied **POLEPOX FLOOR 828-CW** should be protected from damp, condensation and water for at least three days.
- **POLEPOX FLOOR 828-CW** can remain as final surface with medium resistance to acid environments. If there is a need for high resistance to acid solutions, it is recommended overcoating with **POLEPOX COAT 814** (former EPOXY PLASTICOAT) or **POLEPOX FLOOR 817** (former POLAT HIGH RESISTANT FLOOR).
- After hardening, **POLEPOX FLOOR 828-CW** is completely safe for health.

CAUTION

The application must take place in well-aired places using protective gloves. Skin or eye contact

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must be avoided, otherwise wash carefully with soap and water.
For more information consult the material safety data sheet.

The information given here is true, represents our best knowledge and is based not only on laboratory work, but also on field experience. However, because of numerous factors affecting results we offer this information without any guarantee and no patent liability is assumed. For additional information or questions, contact the technical department of POLAT S.A.

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